

Running Head: RACIAL DISTANCE AND HELPING IN TEAMS

We're All in This Together...Except for You: The Effects of Workload, Performance Feedback,
and Racial Distance on Helping Behavior in Teams

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Abstract

Research shows that having a disproportionately heavy workload is associated with receiving high levels of help from team members (Porter, Hollenbeck, Ilgen, Ellis, West, & Moon, 2003).

Drawing from social categorization theory and the actor-observer hypothesis, we extend this research. We explore how a team member's performance feedback on how they handled a disproportionately heavy share of the team's workload and how their racial distance from the rest of their teammates affect the amount of helping that person receives from their teammates.

Results from a laboratory study in which 79 teams worked on a computerized, decision-making task indicated that performance feedback on how a feedback recipient handled a disproportionately heavy share of the workload moderated the effects of workload on helping.

This effect was further moderated by the feedback recipient's racial distance from the rest of their teammates. Racially distant negative feedback recipients who had a disproportionately heavy share of their team's workload received less help from teammates than their racially similar counterparts.

Keywords: teams, helping behavior, racial distance, causal attributions, diversity

Helping behavior represents actions that one person takes to assist another. Help may be provided by one team member to another at any point in the team's life cycle and for many different reasons. Helping and other help-related behaviors (e.g., backing up behavior and team citizenship behavior, hereafter referred to simply as helping behavior) are important for teams because it helps them improve and adapt to the unexpected, particularly when the recipients of helping behavior are in need of help and the team might otherwise not meet its goals (Barnes, Hollenbeck, Wagner, DeRue, Nahrgang, & Schwind, 2008; Ehrhart & Naumann, 2004; Marks, Mathieu, & Zaccaro, 2001; Porter, Hollenbeck, Ilgen, Ellis, West, & Moon, 2003).

Despite the importance of helping in teams, surprisingly few studies have examined its antecedents. The previous work that has explored predictors of helping behavior has focused on situational factors such as workload distribution in teams (e.g., Barnes et al., 2008; Porter et al., 2003), communication factors such as the presence or absence of a team member who requests help (Barnes et al., 2008), or traits among the team members such as personality (Porter et al., 2003) or goal orientation (Porter, 2005). Notably, none of these studies examined causal mechanisms that may explain why these antecedents have their effects. As a result, the literature on helping behavior has been limited both because few antecedents have been examined and because we do not know why those few antecedents predict helping behavior. The purpose of this paper is to examine racial differences between team members as an antecedent of helping behavior and to examine whether attributions (i.e., conclusions that others make about a focal person's success or failure; Weiner, 1985) made about team members influence the amount of help they receive. In particular, we investigate how: (a) the racial distance of a crew member from the rest of their teammates, and (b) performance feedback on the way that crew member handles his or her share of the team's workload explain the amount of helping behavior this team

member receives. We provide the first empirical examination of racial distance and helping behavior in crews, which are a type of team that must immediately perform together effectively (Kozlowski & Bell, 2003). We also examine the mediating role that the causal attributions team members make about the feedback recipient's performance play in explaining helping behavior. We also draw upon social categorization theory (Tajfel, 1981; Tajfel & Turner, 1986; Turner, 1985, 1987) and the actor-observer hypothesis (Jones & Nisbett, 1971; Malle, 2006) to explain why the racial distance between a feedback recipient and the rest of his or her teammates may influence how much help that feedback recipient receives.

Team Diversity: An Overview

Organizations are increasingly diverse (i.e., composed of individuals that differ with respect to some characteristic; Harrison & Klein, 2007; Harrison, Price, & Bell, 1998; Harrison, Price, Gavin, & Florey, 2002; Jehn, Northcraft, & Neale, 1999; Pelled, Eisenhardt, & Xin, 1999; van Knippenberg & Schippers, 2007). Although team demographic diversity generally has a small negative relationship on team cohesion (i.e., emotional attraction among group members; Hogg, 1992) and team performance (Horwitz & Horwitz, 2007; Mannix & Neale, 2005; Webber & Donahue, 2001; Williams & O'Reilly, 1998), diversity can have both positive and negative effects on teams. On the one hand, the value-in-diversity hypothesis (Cox & Blake, 1991; Cox, Lobel & McLeod, 1991) holds that an advantage of diversity is that diverse teams provide a broader range of knowledge and perspectives compared to homogenous teams. Diverse teams generate more creative solutions and innovation than do homogenous teams (Jackson, 1992; Miller & Triana, 2009; Torchia, Calabro, & Huse, 2011; Triandis, Hall, & Ewen, 1965). On the other hand, a more extensive decision-making process takes longer, which may explain why it takes diverse teams more time to ramp up to the performance levels of homogenous teams

(Watson, Kumar, & Michaelsen, 1993).

One form of team demographic diversity, racial differences among team members, is an important, yet unexplored, antecedent to helping behavior. Note that throughout this paper, we use the term *race* to encompass the social category (as opposed to genetic or biological categories) of racial/ethnic background (Gilroy, 1998; U.S. Census Bureau, 2008a). Racial differences are evident in today's workplace and have increasingly become an important team composition issue. Some research suggests that racial differences can lead to dysfunctional team processes and the ascription of negative characteristics to peers (Dipboye & Colella, 2005; Timmerman, 2000; Tsui, Egan, & O'Reilly, 1992; Williams & O'Reilly, 1998). Race is also the demographic that most strongly predicts team members' ratings of how different they are from one another (Harrison et al., 2002).

Further, although numerous demographic variables are of interest in the workplace (e.g., sex, age, race, national origin), research has shown that race is among the strongest, if not the strongest, demographic influence in workplace performance, mistreatment, and other important events. For example, Harrison et al., (2002) found that racial diversity was a much stronger predictor of perceived surface-level diversity than sex diversity. They also found that racial diversity had stronger negative effects on team social integration and collaboration than did sex diversity. Jehn and Bezrukova (2004) found that racial diversity had stronger negative effects on both individual and team performance than did sex diversity. Additionally, racial differences seem to produce more discrimination complaints than sex differences. In 2011, the U.S. Equal Employment Opportunity Commission received 99,947 charges of employment discrimination; among these, racial discrimination complaints were the most prevalent (35.4%), followed by sex discrimination complaints (28.5%; EEOC, 2012), which is especially telling considering that

there are more women (regardless of ethnicity) than ethnic minorities (regardless of sex) in the U.S. workplace (Bureau of Labor Statistics, 2012). Thus, it is clear that for organizations to improve team functioning, understanding race and racial differences is essential.

Meta-analyses have shown that the main effects of team surface-level differences (defined as visible characteristics including race, sex, and age; Harrison et al., 1998) on team outcomes are typically very small (close to zero) and negative (Horwitz & Horwitz, 2007; Webber & Donahue, 2001). However, the negative effects of surface-level differences are stronger earlier in a team's history, before team members get to know each other at a deeper level (Allport, 1954; Harrison et al., 2002). Crews are a type of team that come together for relatively short performance episodes and must work together effectively in a short amount of time; then they typically disband. Examples of crews include police teams, emergency room and nursing teams, and airline crews. They are often used in organizations and are ideal for organizing individual inputs to accomplish goals that require intensive knowledge, shifting work activities, and the ability to work on unfamiliar tasks at a fast pace in order to meet deadlines (Chiochio & Essiembre, 2009; Ellis, Hollenbeck, Ilgen, Porter, West, & Moon, 2003; Haas, 2006). Our research focuses on this type of team.

This study makes a number of theoretical and practical contributions to the teams, diversity, and helping literatures. First, we contribute to the teams and diversity literatures by focusing on situations in which the effects of racial distance, a specific type of racial difference, will impact teamwork in crews. Crews must perform immediately and do not have time to overcome the problems associated with surface-level differences, thus making those differences especially important. Social categorization theory (Tajfel, 1981; Tajfel & Turner, 1986; Turner, 1985, 1987) maintains that people categorize themselves and others into groups based on readily

observable characteristics and this predicts that racial differences can result in process problems in teams, especially those with limited history. In addition, surface-level differences may affect team processes, including the attributions made about a team member's performance and the willingness to help that team member (Bell, Villado, Lukasik, Belau, & Briggs, 2011; Webber & Donahue, 2001). However, these relationships have not been empirically tested.

Second, we make a theoretical contribution to the teams literature by combining social categorization theory with the actor-observer hypothesis (Jones & Nisbett, 1971; Malle, 2006) to develop predictions regarding why the racial distance between feedback recipients and the rest of their teammates may influence how much help the feedback recipients receive. The actor-observer hypothesis states that "actors tend to attribute the causes of their behavior to stimuli inherent in the situation, while observers tend to attribute behavior to stable dispositions of the actor" (Jones & Nisbett, 1971, p. 93). We extend the actor-observer hypothesis to the study of crews and examine whether attributions about the feedback recipient play a mediating role in explaining how much help that feedback recipient receives.

Third, our focus on helping behavior allows us to extend the relatively small literature on individually provided helping in teams. We measure helping behavior, not just intentions to help. We also partially test and extend a theoretical model of the effects of attributions on helping in teams (LePine & Van Dyne, 2001) to include the effect of racial distance in teams as a moderator of attributions made and helping behavior. Although team members should help others who are failing to accomplish their share of the team's workload, especially when the team is rewarded collectively (Bamberger & Levi, 2009), social categorization theory and the actor-observer hypothesis together suggest that such helping is likely to be absent when the person in need is racially different from the rest of their teammates.

Theory and Hypotheses

The Relationship between Workload and Helping Behavior

Because team members are interdependent, meaning that they rely on each other to achieve common goals (Cohen & Bailey, 1997; Kozlowski & Bell, 2003), it is sometimes important for them to help other team members. Helping behavior enables team performance by reallocating resources and effort from one person's task to another's. Yet it could also detract from the team's performance if that reallocation is not wisely tailored (Barnes et al., 2008; Porter et al., 2003). A good use of helping behavior would be when individuals have a legitimate need for help, meaning that they require assistance from other team members due to factors beyond their control (Porter et al., 2003). Team members have a legitimate need for and receive greater amounts of helping behavior when they have a workload that is significantly heavier than that of other team members (Barnes et al., 2008; Porter, Gogus, & Yu, 2010). This is especially true if they do not have sufficient resources to fulfill their share of the team's workload (Porter et al., 2003). Research has demonstrated a positive relationship between a team member's workload and helping behavior received (e.g., Barnes et al., 2008; Porter et al., 2003; Porter et al., 2010). We anticipate replicating this effect in our investigation of individual helping behavior.

The Moderating Effects of Feedback on the Workload → Helping Behavior Relationship

Performance feedback provided publicly from an authority figure about the way a feedback recipient has handled his/her share of the work only sometimes results in helping (Jackson & LePine, 2003; LePine & Van Dyne, 2001). Thus, we do not predict a direct effect for performance feedback because the context in which that feedback is given (i.e., performance relative to situation) must be taken into account. Instead, we formulate predictions about how the feedback a team member receives regarding his or her handling of a disproportionately heavy

share of a team's workload influences the amount of helping behavior that team member receives. We focus on this effect because the nature of the performance feedback a team member receives should further signal the need for help.

In this paper, we make the assumption that crew members are aware of feedback publicly given by the authority figure to their teammate. Take, for instance, a team of employees brought together to work interdependently for a short project. Such a team would typically have autonomy in that the team and its members would have the ability to proceed with their task as they see fit. At the same time, the team would be answerable to some stakeholders (e.g., clients, team leader, project sponsor; Hackman, 1990). When specific members fail to complete their portion of the team's work, it is likely to be readily observable by others on the team. For example, a delay on the part of one team member could cause the crew as a whole to fail to reach its deadline. If the crew has a designated leader, this individual could admonish the team members responsible for the delay.

When a feedback recipient has the same workload as the rest of his or her team members, receiving positive feedback may elicit low levels of helping behavior from team members because the feedback recipient has no need for help. There is little reason to help such a feedback recipient because he or she is handling non-exceptional task demands and unnecessary help could draw resources away from other team members' tasks. However, the same workload as the rest of the team combined with negative feedback should suggest to team members that despite the non-exceptional nature of the workload, the feedback recipient is failing. This is consistent with LePine and van Dyne's (2001) model which presents four possible responses to a low-performing coworker. Even when the low-performing coworker is seen as lacking in ability or conscientiousness, three out of the four possible responses in LePine and van Dyne's model

involve helping the coworker (i.e., compensation, training, motivating, or rejecting).

When a crew member has a disproportionately heavy share of the team's workload, receiving positive feedback will suggest that help is not needed because the feedback recipient is handling his or her task demands. Negative feedback, however, should indicate a need for help. We predict that team members will exhibit the most helping behavior in this latter situation because the feedback recipient has a legitimate need (Porter et al., 2003; Porter et al., 2010) and is failing to meet demands, and this failure to perform could put the team's ability to reach its goals in jeopardy. Thus, a disproportionately heavy workload coupled with negative feedback should send a clear signal that help is necessary and should lead to the highest amounts of helping behavior. This is consistent with LePine and van Dyne's (2001) theoretical model, which predicts that responses to low-performing coworkers will usually elicit some type of helping behavior (e.g., compensation, training, motivating) from their teammates. Because teams are composed of interdependent members whose outcomes and goal attainment depend on each other (Kozlowski & Bell, 2003), we expect that negative feedback will exacerbate the positive effects of having a disproportionately heavy share of the team's workload on helping behavior.

Hypothesis 1: There will be an interaction between workload and performance feedback on the amount of helping behavior a feedback recipient receives. The positive effect of workload on helping behavior will be stronger when feedback is negative than when it is positive.

Racial Distance as a Moderator of the Workload × Feedback Relationship

Crews are often short-lived, meaning that team members typically have limited experience with one another (Ellis et al., 2003; Haas, 2006). As a result, they likely use quickly accessible categories to make sense of one another (Allport, 1954; Gilbert, 1998). Surface-level

differences, such as race, are particularly salient (Tajfel & Turner, 1986; Turner, 1985); they can be used to put individuals into categories and have been shown to cause process problems for diverse teams early in teams' interactions (Harrison et al., 1998; Harrison et al., 2002; Watson et al., 1993).

Given its likely salience in crews just as in other teams with short histories, the racial distance of feedback recipients from the rest of their teammates may further moderate the workload \times feedback interaction. We predict that the racial distance of the feedback recipient from the rest of his or her teammates will help further explain how negative feedback exacerbates the effects of a disproportionately heavy workload on help received. This is grounded in both social categorization and social identity theories. Social identity theory suggests that individuals activate automatic categorization processes to quickly make sense of their environment (Abrams & Hogg, 1988; Hogg & Abrams, 1990; 1993; Hogg & Terry, 2000). Observing a team member receive negative feedback creates a need to respond to a potential performance threat and to react quickly. This provides an opportunity for race to be used to categorize feedback recipients who receive negative performance feedback. In Hypothesis 1, we predicted that receiving negative feedback would exacerbate the positive effects of having a disproportionately heavy workload on helping. Here, we predict that racial distance will further moderate this effect. Specifically, we predict that when negative feedback recipients are racially distant from their teammates, they are less likely to receive help from those racially distant teammates.

Hypothesis 2: The interaction between workload and performance feedback on the amount of helping behavior the feedback recipient receives (Hypothesis 1) will be moderated by feedback recipients' racial distance from their teammates. The workload

effect among negative feedback recipients will be weaker for racially distant feedback recipients than for racially similar feedback recipients.

The Mediating Role of Causal Attributions

Next, we expect that the causal attributions that team members make about the performance of feedback recipients will explain why team members do or do not provide help. Causal attributions play an important role in determining behavior (Russell, McAuley, & Tarico, 1987). Weiner's (1985) attributional theory proposes that individuals draw causal attributions in an attempt to understand "why"—why success or why failure. We expect that salient characteristics of a feedback recipient, such as racial distance from the rest of the teammates, will trigger attributions by the team, which will in turn influence helping behavior (Weiner, 1985; 1986).

Weiner identified three causal attributions: locus of causality, stability, and controllability. Locus of causality concerns whether the cause of the target person's performance resides within (internal) or outside of (external) the person. For a negative feedback recipient, internal locus of causality is a more negative causal attribution as it suggests that responsibility lies with the feedback recipient. An external locus of causality would suggest that responsibility lies with external causes (e.g., task difficulty). Stability concerns whether the cause is invariant or variant over time. For a negative feedback recipient, stable causal attributions are negative because they suggest that the poor performance is permanent and cannot change. On the other hand, unstable causal attributions should be more positive because they suggest that performance can improve. Finally, controllability refers to whether an outcome is within the feedback recipient's control (Weiner, 1985; Weiner, Russell, & Lerman, 1979). McAuley, Duncan, and Russell (1992) demonstrated that the controllability dimension could be further divided into

personal control (whether an outcome is controllable or uncontrollable by the focal person) and external control (whether an outcome is controllable or uncontrollable by other people). For a negative feedback recipient, high levels of personal control are more negative than low levels of personal control because this suggests that the feedback recipient had control over his or her performance. By contrast, high levels of external control should be positive for the negative feedback recipient because the poor performance was caused by factors outside of their control. In the context of a crew where one team member receives performance feedback, the feedback recipient is the actor and the rest of their teammates are observers. Jones and Nisbett (1971) described an actor-observer asymmetry whereby actors are more likely to take situational (or external) factors into account when describing their own actions, while observers are more likely to focus on dispositional (or internal) explanations. Although a meta-analysis of the actor-observer effect generally found very small effects (Malle, 2006), there were a few notable exceptions. One exception was when the target person was seen by the observer as being idiosyncratic compared to the rest of the team (Malle, 2006). This is important in a racially diverse team because if the only feedback recipient is racially distant from the rest of his or her team members, that feedback recipient is idiosyncratic from others based on readily observable surface-level differences (Harrison et al., 2002; Tajfel & Turner, 1986). Another exception in which the actor-observer asymmetry holds is when negative events are being explained (Malle, 2006). If a team member receives negative performance feedback, this represents a negative event in a crew.

A disproportionately heavy share of the team's workload coupled with negative performance feedback should result in a sympathetic response from team members because the feedback recipient needs help (Weiner, 1985). This situation should encourage team members

(i.e., observers) to consider external, situational factors and make external attributions about the feedback recipient. For example, being assigned a disproportionately heavy share of the team's workload is not the negative feedback recipient's fault, which suggests an external locus of causality. Moreover, given the increased task demands, the teammates could have influenced the situation by providing greater levels of assistance to the negative feedback recipient, which suggests a lack of stability.

However, research suggests that team members may attribute a feedback recipient's failure to the feedback recipient when that person is seen as an out-group member (Malle, 2006), such as when the feedback recipient is racially distant from the rest of their teammates. The attributions made by their teammates about the cause of the negative feedback recipients' performance are likely to be internal (i.e., internal locus of causality, stable, higher in personal control, and lower in external control) when that feedback recipient is racially distant. Theory and research suggest that internal locus of causality attributions are associated with non-empathetic responses such as less helping. Stability attributions are associated with low expectations about the potential for change. Finally, high personal controllability and low external controllability are associated with a lack of empathy and even anger (Brown & Mitchell, 1986; LePine & Van Dyne, 2001; Jackson & LePine, 2003; Weiner, 1980a, 1980b; Weiner, Graham, & Chandler, 1982).

Therefore, if negative attributions are made about racially distant team members who received negative feedback and had disproportionately heavy workloads, then teammates will withhold help behavior from the feedback recipients. This reasoning is consistent with research showing that attributions are made quickly using salient information about others (Taylor & Fiske, 1978) and that observers extend more help to in-group members than to out-group

members (Levine, Cassidy, Brazier, & Reicher, 2002). While Levine et al. (2002) studied the individual helping of strangers in emergency situations, we examine team helping behavior in the context of interdependent crew members.

Hypothesis 3: The three-way interaction of workload, performance feedback, and racial distance on the amount of helping behavior the feedback recipient receives (Hypothesis 2) will be mediated in part by higher a) internal locus of causality, b) stability, and c) personal control and by d) lower external control causal attributions.

Method

Research Participants and Task

Participants were 316 undergraduate students recruited from an introductory management class at a large university located in the southwestern United States. Most participants (86.1%) were Caucasian, 6.3% were Hispanic, 6% were Asian, 1.3% were African American, and 0.3% were Native American. The majority (56%) were female. Most (97.8%) were juniors or seniors. Their average age was 20.49 years. Participants were offered extra credit in exchange for their participation and were informed that they could also win a cash prize (\$100 per team) based on their team's performance on the task.

In order to put our sample within the context of the larger U.S. employee population, we compared our demographics to Bureau of Labor Statistics (2012) data. In 2011, 82% of the U.S. workforce was Caucasian while 18% was minority. With respect to sex, 53% of employees were male while 47% were female. However, for management and professional occupations, the demographics are 48.61% male and 51.39% female. Our sample racial demographics (86.1% Caucasian, 13.9% minority) are somewhat similar to the U.S. workforce. Our sample had a higher percentage of females (56% female, 44% male) than the overall U.S. employee

population. However, our sample (business students in a management class) roughly resembles the sex composition of managerial and professional occupations. We were unable to find a breakdown of the U.S. employed population by age. However, we know that our participants (mean age 20.49) are young. Our sample will therefore best generalize to young professionals entering the workforce.

Participants worked on a modified version of the Distributed Dynamic Decision-making (DDD) simulation developed for the Department of Defense for research and training purposes. DDD is a military command and control simulation where team members work interdependently to protect an on-screen geographic area (i.e., a no-fly zone) from enemy “tracks” (i.e., on-screen graphical representations of potentially threatening vehicles such as tanks or helicopters) that move through a section of airspace monitored by the team. The task was developed for team members with little or no military experience. Team members worked in a common room at one of four networked workstations and used a computer mouse to control military resources such as tanks, helicopters, jets, and reconnaissance planes. The workstations were partitioned, but participants could talk to each other during the simulation.

Teams protected the on-screen geographic area by shooting down enemy tracks that entered one of two restricted areas of the screen. Teams were to avoid shooting down any friendly tracks that entered the screen. The two restricted areas were each partitioned into four sections, or quadrants. Each of the team members, labeled Decision Maker (DM) 1, 2, 3, or 4 by the DDD task, had primary responsibility for one of these four quadrants. To defend the entire area, team members had to discuss the location of the tracks on the screen (no one team member could see all of the screen and all of the tracks), make decisions regarding which tracks to shoot down or ignore, and coordinate their resources. Teams received higher scores on the task when

they made accurate decisions and executed them quickly.

Each team member controlled one jet, one helicopter, one tank, and one reconnaissance plane (with a total of four of each resource on each team) to defend the on-screen geographic area. Because each participant had the same amount and type of resources, we could make direct comparisons across individual team members and across teams (see Hollenbeck et al., 2002, for a more detailed description of the DDD task).

Procedures

This study used a 2 (positive or negative performance feedback) \times 2 (equal or heavier workload) between-team design. Upon arriving at the laboratory, participants were randomly assigned to a position on a 4-person team, which resulted in 79 teams. Teams were randomly assigned to conditions, with 20 teams per condition except for the positive feedback-equal workload condition, which consisted of one fewer team. Within teams, we randomly assigned each team member to work at one of four computer stations (i.e., the DM1, DM2, DM3, or DM4 station). In all sessions, DM2 was the feedback recipient. Our interest concerned DM2's workload relative to his or her team members, the feedback this member received, and his or her racial distance (not DM2's racial minority status) from the each member of his or her team because each team member had an opportunity to individually provide help to DM2. Consistent with the total sample, most participants in the DM2 position were Caucasian ($N = 71$; 89.9%), 1 (1.3%) was African American, 4 (5.1%) were Hispanic, and 3 (3.8%) were Native American. Recall that our interest is not whether the feedback recipients were members of racial minorities but rather the extent to which feedback recipients were racially distant from their team members. The fact that most of our participants were Caucasian does not preclude us from examining our hypotheses about racial *distance* (Bell et al., 2011; Harrison & Klein, 2007).

Teams were trained on the DDD interface and the task for approximately one hour. They then practiced the task for 30 minutes without assistance from the experimenter. After the practice session, participants began the actual task, which consisted of two 30-minute performance trials (i.e., Time 1 and Time 2). After the Time 1 trial, the experimenter recorded the individual and team performance scores. The experimenter then provided performance feedback publicly regarding DM2's task performance (see Performance Feedback below). Participants then responded to a survey that contained the causal attribution measures. Next, teams worked on the Time 2 performance trial. After the Time 2 trial, team members answered demographic questions before being debriefed. During the debriefing, the experimenter informed participants that the feedback that any participant received during the task may not have been representative of that participant's actual performance. The entire study (i.e., training, practice session, and two performance trials) lasted about three hours. Participants were thanked, dismissed, and the \$100 prize was awarded to the highest performing team at the end of the semester.

Manipulations

Workload. In each performance trial, teams experienced four surges during which a dramatic increase in enemy tracks appeared in one of the geographic quadrants. In the same workload condition, each member experienced one surge during the task. In the heavier workload condition, DM2 received all four of the surges and no other team member experienced a surge at any time. Workload was coded 0 for same workload condition and 1 for heavier workload condition.

Performance feedback. In all conditions, DM2 was the only team member who received feedback. In the positive feedback condition, DM2s were publicly told that they successfully

managed the surge(s) of tracks that moved through their quadrants and were reminded that how they managed the tracks had a significant influence on their team's performance. In the negative feedback condition, the DM2s were publicly told that they appeared to have difficulty in managing the surge(s) of tracks that moved through their quadrants and were reminded that how they managed the tracks had a significant influence on their team's performance. Performance feedback was always public. It was coded 0 for positive feedback and 1 for negative feedback.

Measures

Helping behavior. We measured helping behavior during the Time 2 performance trial objectively by calculating the number of times that DM1, DM3, and DM4 shot down enemy tracks that were in DM2's quadrant. A coder who was unaware of the study's hypotheses but familiar with the DDD task watched computer recordings of each team member performing his or her task and coded this behavior. Our conceptualization and operationalization of helping behavior therefore represents actual, rather than intended, helping behavior by each team member toward the feedback recipient. In addition, because in each team there was one feedback recipient who was our focal help recipient and three other team members who were potential help providers, our helping behavior measure was captured at the dyadic level. The measure captured how much DM1 helped DM2, DM3 helped DM2, and DM4 helped DM2 in each team.

Causal attributions. We measured each potential help providers' locus of causality, stability, personal control, and external control using a twelve-item measure developed by McAuley et al. (1992). Three items are used to measure each of the four attribution dimensions. Participants were instructed to answer these questions about any team member who received performance feedback (which, unbeknownst to the participants, was always DM2). The items concerned the extent to which respondents believed the feedback recipient's performance could

be attributed to different causes. High values on the locus of causality subscale suggest that the feedback recipient was the cause of his or her performance (e.g., 1 = *reflects an aspect of the situation* to 9 = *reflects an aspect of the team member*). High values on the stability subscale suggest that the cause of the feedback recipient's performance was stable and unchanging (e.g., 1 = *temporary* to 9 = *permanent*). High values on the personal control subscale suggest that the feedback recipient had control over his or her performance (e.g., 1 = *not manageable by your team member* to 9 = *manageable by your team member*). Finally, high values on the external control subscale suggest that the cause of the feedback recipient's performance was something that others had control over (e.g., 1 = *over which others have no control* to 9 = *over which others have control*). As with our helping behavior variable, causal attributions were also measured at the dyadic level because within each team, each potential help provider (i.e., DM1, DM3, and DM4) provided attribution ratings on the sole feedback recipient (i.e., DM2) in their team.

Cronbach alphas for locus of causality, stability, personal control, and external control were .75, .66, .76, .73, respectively, which is consistent with those reported by McAuley et al. (1992). Confirmatory factor analysis (LISREL 8.80, maximum likelihood estimation) demonstrated the discriminant validity of the casual attribution subscales. A four-factor solution provided a good fit to the data (Hu & Bentler, 1999; Kline, 2005), $\chi^2 = 162.53$, $df = 48$, CFI = .95, IFI = .95, SRMR = .07, RMSEA = .08. The four-factor solution provided a better fit than a three-factor solution with personal and external control merged onto one factor ($\chi^2 = 362.20$, $df = 51$, CFI = .85, IFI = .85, SRMR = .11, RMSEA = .14; $\Delta \chi^2 = 199.67$, $df = 3$, $p < .05$) and a one-factor solution ($\chi^2 = 456.26$, $df = 54$, CFI = .81, IFI = .81, SRMR = .12, RMSEA = .16; $\Delta \chi^2 = 293.73$, $df = 6$, $p < .05$).

Feedback recipients' racial distance from their teammates. We asked each team

member to self-report his or her race near the end of the survey. Because our theoretical interest concerns racial differences between our feedback recipients and each of the other members of their teams, we created a variable that was coded 0 when the feedback recipient and a potential help provider were of the same race and 1 when the feedback recipient and a potential help provider were of different races. This coding scheme was consistent with previous research that has examined racial differences in supervisor-subordinate dyads (e.g., Liden, Wayne, & Stilwell, 1993; Turban & Jones, 1988). Moreover, our coding scheme represents the Euclidean Distance between two individuals on a single dimension (Deza & Deza, 2009; Larson & Hostetler, 2007). It is noteworthy that the Euclidean Distance also represents a separation approach to diversity, which Harrison and Klein (2007) suggested is an appropriate approach to measuring differences when one relies on social categorization as a theoretical framework, as we do in this study.

Control variables. Given our interest in how team members would respond to our workload and feedback manipulations along with the racial distance between the feedback recipient and each of their teammates, we controlled for the helping behavior provided by each of those team members at Time 1. That is, to better isolate the effects of our predictors, we controlled for the extent to which team members helped the feedback recipient prior to our team level manipulations. Helping behavior during the Time 1 task was measured consistent with helping behavior during the focal task at Time 2.

Level of Analysis and Analytic Approach

Because of our nested data structure (i.e., 237 dyads nested within 79 teams), the mixed levels (dyadic and team) of our variables, and the cross-level interactions implied by our hypotheses, we used hierarchical linear modeling (HLM, Raudenbush & Bryk, 2002) to test our hypotheses. HLM has a number of advantages over ordinary least squares regression when

dealing with nested and multilevel data structures (see Bliese, 2000 for a review). For this study, using HLM allowed us to capture as much information as possible by beginning with the dyadic pieces of information (i.e., racial distance between each team member and DM2, helping behavior provided by each team member to DM2, and the attributions each team member made regarding DM2's task performance) along with the effect of our team level manipulations (i.e., workload and the feedback that was provided to DM2).

Results

Manipulation Checks

Several questions were used to examine the effectiveness of our performance feedback manipulation. We asked: (a) whether anyone on the team received individual performance feedback based on the Time 1 performance trial; and (b) who, if anyone, received the feedback. Nearly every participant (97%) noted that someone had received feedback and that it was DM2 (93.7%). We also asked whether the feedback, if any was provided, was negative, positive, or neutral. A total of 94% of the participants in the positive feedback condition reported that positive feedback was provided while approximately 89% of the participants in the negative feedback condition reported that negative feedback was provided. This provides support for the effectiveness of this manipulation. The workload manipulation used in this study was computer-controlled and identical to that used in a number of published studies (e.g., Barnes et al., 2008; Porter et al., 2003). Thus we did not include additional survey questions to measure the effectiveness of this manipulation.

Tests of Hypotheses 1 and 2

Table 1 presents the means, standard deviations, and correlations among the study variables. We tested Hypotheses 1 and 2 via HLM (see Table 2). Because our hypotheses are

directional, we use one-tailed tests (Hinkle, Wiersma, & Jurs, 2003). Model 1 included the Time 1 helping behavior control variable. As expected, Time 1 helping behavior was related to Time 2 helping behavior, $\gamma = .73, p < .01$. Model 2 demonstrated the main effect of workload on helping behavior, $\gamma = 3.10, p < .01$. Model 3 tested Hypothesis 1, which proposed an interaction between workload and feedback. As can be seen in Table 2, Hypothesis 1 was not supported. However, Hypothesis 1 was further qualified by Hypothesis 2, which proposed a cross-level, three-way interaction among workload, feedback, and racial distance. This was tested in Model 4 (Table 2), which found a significant three-way interaction of workload \times performance feedback \times racial distance, $\gamma = -2.58, p < .05$. As seen in Figure 1, the pattern of the interaction is consistent with Hypothesis 2. Among feedback recipients who received negative feedback and had a workload that was disproportionately heavy, those who were racially distant from their teammates received the least help from their team members.

Test of Hypotheses 3a-3d

Hypotheses 3a-3d stated that the lower levels of help that racially distant feedback recipients receive from their team members when they receive negative performance feedback and handle a disproportionately heavy workload will be partially mediated by the attributions team members make about the feedback recipients' performance. Because Hypotheses 3a-3d proposed mediated moderation, we extended an approach developed by Edwards and Lambert (2007) that integrates regression with path analysis to account for an additional moderator. We first ran a set of analyses (Table 3a) regressing causal attributions (i.e., our mediators) on the predictors (i.e., workload, feedback, and racial distance). The second set of regressions (Table 3b) regressed helping behavior on the causal attributions. We then substituted the coefficient estimates from the first set of regressions into the second set of regressions to derive a reduced-

form equation for helping behavior. This was used along with bootstrapping to calculate: (a) the direct effect of our two-way interaction on helping for each attribution across both levels of racial distance; (b) the indirect effects of our workload \times feedback interaction through each mediator across both levels of racial distance; and (c) the total effects (i.e., direct and indirect) along with a test of the significance of each. Edwards and Lambert (2007) provide a more complete discussion of the procedure.

Table 4 provides the results of tests of Hypotheses 3a-3d. We found no evidence of a workload \times feedback interaction on locus of causality (H3a), personal control (H3c), or external control (H3d) attributions. In addition, we did not find evidence of any indirect effects of workload \times feedback on helping through any of these attributions. Thus, Hypotheses 3a, 3c, and 3d were not supported.

We did, however, find a significant workload \times feedback interaction on stability attributions when the feedback recipient was racially similar to his or her team members, $B = 2.24, p < .05$ (Table 4, Column 1). To better understand the nature of this effect, we examined the mean stability scores (see Table 5 for these means and for the means for all of our causal attributions). The means suggest that having a disproportionately heavy share of the team's workload resulted in high stability attributions for racially similar negative feedback recipients, $M_{(\text{same workload})} = 10.89$ compared to $M_{(\text{heavy workload})} = 11.26$. However, we did not find any evidence of an indirect workload \times feedback effect on helping behavior through stability attributions (Table 4, Column 3), $B = .00, ns$. Thus, stability attributions did not explain the workload \times feedback interaction on racially similar feedback recipients and there was no support for Hypothesis 3b.

Discussion

We extended previous research on the effects of workload on helping behavior to crews in which one team member receives feedback. Having a disproportionately heavy workload led to receiving greater amounts of helping behavior from team members. We did not find that receiving negative performance feedback exacerbated the increased amount of helping behavior received due to having a disproportionately heavy workload.

Our findings suggest the importance of racial distance in crews and other short-lived teams and its potential to have negative effects on team processes. We found a three-way interaction between racial distance of the feedback recipient, workload, and feedback as a predictor of helping behavior. Among negative feedback recipients who had a disproportionately heavy share of their team's workload, those who were racially distant from their teammates received less helping behavior than those who were racially similar to their teammates. Team members' failure to provide helping behavior to these racially distant feedback recipients were not transmitted through the attributions they made about the feedback recipients' performances. We explore possible reasons for this in the theoretical implications below.

Theoretical Implications

Our study is unique in that we explore the racial distance of a focal team member (the feedback recipient) from the rest of their teammates rather than the racial minority status of the team member. We introduce racial distance as a potentially important characteristic of negative feedback recipients. Our focus on negative feedback recipients is somewhat analogous to the "low performers" that have been studied in the context of work teams (i.e., Jackson & LePine, 2003). Our finding that team members withheld helping behavior from others who had a need and were not performing well when they were racially distant is troublesome considering the

high levels of outcome interdependence among our teams, which was reinforced by offering a team-level cash prize. Despite the interdependence of the teams, team members were unable or unwilling to provide needed help when feedback recipients were racially distant. This suggests that racial dissimilarity is an obstacle to optimal resource reallocation in teams. Our results suggest that race should be added to theoretical models of helping and helping behavior in teams (e.g., LePine & VanDyne, 2001), especially if those models extend to crews or other teams with short life spans.

Further, we tested whether attributions influence helping in teams, differentiating among locus of causality, stability, and controllability (LePine & Van Dyne, 2001). We found no evidence of a workload \times feedback \times racial distance interaction on personal control, external control, or locus of causality attributions. Taken together, our findings show no support for the hypothesis that causal attributions transmit the effect of our interaction effects on helping behavior. Our results are especially important because we examine actual, objective helping behavior, rather than helping intentions or subjective reports of helping.

One explanation for the lack of effect of attribution mediators is that helping behavior may be driven by subconscious processes rather than conscious ones. Our participants were asked to answer the questions about causal attributions between the Time 1 and Time 2 performance trials. When they consciously stopped and answered questions about to what they attributed the feedback recipients' performances, they did not seem to consciously assign blame to the feedback recipients. Yet during the Time 2 performance trials, we found that racially distant feedback recipients received less help from their teammates when they had heavier workloads and got poor performance feedback. Thus, it is clear that teammates were processing the workload, feedback, and racial dissimilarity information and that it influenced their helping

behavior. We suspect that these effects may be based on subconscious biases against those who are different.

Research suggests that "... most of a person's everyday life is determined not by their conscious intentions and deliberate choices but by mental processes that ... operate outside of conscious awareness and guidance" (Bargh & Chartrand, 1999, p. 462). McConnell and Leibold (2001) reported that Caucasian participants with subconscious biases favoring Caucasians were less likely to smile at, speak to, and be friendly toward Black experimenters than Caucasian experimenters. Two studies also demonstrate that being cognitively distracted leads to more discrimination. Hofmann, Gschwendner, Castelli, and Schmitt (2008) found that subconscious racial prejudice was a stronger predictor of overt discrimination when participants were cognitively taxed than when they were not. If the conscious part of the mind is tired or busy, subconscious bias is more likely to emerge because there is less cognitive control available.

Our study has implications for the actor-observer effect in teams (Jones & Nisbett, 1971). By focusing on the attributions that team members make about feedback recipients in their team, our results show virtually no evidence that racial distance between actors and observers influence the attributions that observers make about actors. The findings suggest that the actor-observer effect is not influenced by the racial characteristics of the actor and observer(s), at least not consciously.

Our study also provides evidence that racial distance matters between teammates. Bell et al. (2011) point out that team research typically examines racial variation (i.e., how racial categories are distributed in the team) rather than racial separation (i.e., polarized subgroups in teams; Harrison & Klein, 2007). Given how few studies examine racial separation (i.e., distance) in teams, Bell et al. (2011) question whether most prior studies have used the most powerful

approach to measuring the effects of diversity on team outcomes. Because our theory concerns the distance between the feedback recipient on the team and their teammates, we used a separation approach to measure racial distance. Our findings support Bell et al.'s (2011) suggestion that using a separation approach to race in teams can reveal important race-related effects in team behavior.

Managerial Implications

If team members withhold helping behavior from their teammates during times when they should really be helping them, team performance can suffer (Porter, 2005). This is critical for crews, as their temporary nature may prevent members from overcoming problems linked to surface-level differences such as the ones we examined. This is timely considering that the U.S. workforce is becoming more diverse, with minorities currently constituting one-third of the U.S. population and expected to become the majority in the U.S. by 2042 (U.S. Census Bureau, 2008b). Given these demographic trends, understanding how diverse teams can work best together is a pressing concern.

So what are companies to do? In practice, it would not be practical, ethical, or legal to assign people to short-term teams based on surface-level similarities (Title VII of the Civil Rights Act, 1964; U.S. National Archives, 2012). The results of our study suggest that racial differences among team members are an important factor that must be managed in teams. With this in mind, we offer a few suggestions. First, some studies show that the performance of demographically diverse teams can improve over time as team members get to know one another and focus more on deep-level (e.g., psychological) differences as opposed to surface-level demographic differences (Allport, 1954; Harrison et al., 2002; Watson et al., 1993). Perhaps it would be fruitful for organizations with racially diverse teams to train teams together before they

have to perform or to hold team-building activities early in the team's life cycle so that team members can get to know each other and understand their deep-level similarities more quickly. Such team-building activities could provide members an opportunity to re-categorize racially distant teammates as in-group members (Allport, 1954; Gaertner & Dovidio, 2000; Urban & Miller, 1998). We also suggest that where racially diverse ad hoc teams are likely to be constructed and team membership may not be determined until just before the team is formed, employers make attempts to provide employees with pre-team formation training opportunities in which they can work with others who are racially different. Unlike diversity training, such on-the-job experiences might provide opportunities for employees to gain experience working with those who are different rather than simply discussing the potential benefits of diversity (Pettigrew & Tropp, 2006).

This is not to suggest that we are counseling against diversity training. Where feasible, we encourage the use of any training early in a team's life cycle to convey the view that differences are an opportunity rather than a threat (Cox, 1993). Research shows that when the members of diverse teams believe that diversity is good and adds value, team identification is higher (van Knippenberg, Haslam, & Platow, 2007; van Dick, van Knippenberg, Hägele, Guillaume, & Brodbeck, 2008). Diversity training is one way to help diverse team members connect and experience fewer problems. This should not be difficult to implement as racial diversity is one of the most common topics addressed by companies that engage in diversity training both in the U.S. and worldwide (Catalyst, 2006). However, in crews, training for the team itself is often not feasible. Organizations should plan ahead to ensure that diversity training occurs and the organizational climate for diversity is positive and strong.

One option that may help crews that are together for short periods of time is for teams

with racial differences to make use of communication media that reduce the negative effects of social categorization. For example, meta-analyses comparing computer-mediated communication (CMC) to face-to-face interaction found that groups using CMC experience greater team member participation, greater equality, and less member dominance than groups meeting face-to-face (Fjermestad, 2004; Rains, 2005). Research shows that minority members participate more when team members do not see each other (Bordia, 1997; McLeod, Baron, Marti, & Yoon, 1997). Also, when social categorization cues are not as salient, norms of inclusion (Dubrovsky, Kiesler, & Sethna, 1991; Siegel, Dubrovsky, Kiesler, & McGuire, 1986) and uninhibited communication (Sproull & Kiesler, 1986) are exhibited more often. Thus CMC may be helpful for teams with racial differences, particularly if the team members are geographically distributed and use CMC to accomplish their work. Future research may examine technology that can reduce social categorization effects in diverse crews.

Limitations and Future Research

One limitation of our study is that the characteristics of the students in our sample may not generalize well to the rest of the population. Our sample had only 13.9% racial minorities. However, demographics such as these may be found in organizational settings, including *Fortune 500* boards of directors, where Hispanics and African Americans fill about 12.8% of seats (Alliance for Board Diversity, 2011; Hispanic Association on Corporate Responsibility, 2011). Our sample did not preclude us from testing our hypotheses because our theoretical interest was in racial distance between team members, not racial minority status or racial diversity. Still, we acknowledge that the more diverse the sample, the more questions we would be able to answer about the effects of being different. Future research should aim to collect more diverse samples with varying levels of dissimilarity in the team so that they may test the

generalizability of our results. Also, while our sample size of 79 teams is similar to the sample sizes published in other team-level studies, we acknowledge that it would be useful to replicate our results with other samples in the future. Ideally, this study should be replicated with diverse crews in a workplace. Future research should also examine subconscious bias against those who are different to determine whether that is transmitting the effects of our interaction on helping.

Another limitation is the laboratory setting of the study. Our participants earned extra credit and possible monetary rewards for high levels of team performance. Although similar to the incentives for which employees perform in organizations, the incentives offered in this study were not the same as those provided by real employers. While crews in organizations work together for limited time periods to perform a specific task (Hackman, 1990), we are unsure how our results might generalize to teams that work together for longer periods of time. The participants in our study worked together for about three hours. The dynamics in our teams may thus differ from those in the field. Our findings best extend to teams that work together for short periods of time (e.g., emergency medical teams, police teams, airline crews).

Also, while we computed racial distance based on participants' self-reported racial/ethnic backgrounds, we did not measure whether other crew members perceived that the feedback recipient was racially different. We studied race in the hope that it would be salient enough that teammates would notice racial differences. Harrison et al., (2002) found that team racial diversity was a positive and significant predictor of team members' perceived surface-level diversity ($\beta = .47, p < .01$). However, because we did not measure the perceived race of the feedback recipient, we cannot say for sure if participants noticed racial differences. Future research should measure perceived differences.

Another limitation is that while we focus on one form of diversity in the present study (i.e., racial distances), we do not measure faultlines. Future research may take a faultline approach (Lau & Murnighan, 1998), whereby multiple demographic differences could be considered simultaneously. While our research questions and theory were about race, future research may expand upon our findings by using more complex measures of diversity through a faultline approach that takes multiple demographic variables into account. For example, more comprehensive measures of diversity including race, sex, age, and eye color may be informative.

Finally, the students in our sample were young adults (average age of 20.49) who have lived their entire lives during a time when schools have been desegregated (providing opportunity for intergroup contact) and racial discrimination has been prohibited by the Civil Rights Act of 1964. A meta-analysis shows that intergroup contact usually reduces prejudice (Pettigrew & Tropp, 2006). Furthermore, while performing the task reported in this study, the students were working toward a common goal with their team members. The teams had a high level of task interdependence and the potential to win a cash prize to be shared among the team (i.e., high levels of outcome interdependence). Cooperative tasks such as this decrease in-group biases (Bettencourt, Charlton, & Kernahan, 1997) and can reduce hostility between different groups (Sherif, 1936). For these reasons, we suspect that we present a conservative test. If this study were replicated in a field setting, effects might be stronger.

Conclusion

Given the increasing diversity of the U.S. workforce (U.S. Census Bureau, 2008b) and the increasing reliance on teamwork in organizations (Devine, Clayton, Philips, Dunford, & Melner, 1999; Gordon, 1992; Mathieu, Maynard, Rapp, & Gilson, 2008), organizations must manage team diversity (Cox, 1993). Results show that while individuals help teammates who are

doing a disproportionate amount of work more than they help teammates who have the same workload as everyone else, the teammate's performance and their racial distance influence the amount of helping behavior they receive. This underscores the relevance of examining team member distance along various dimensions in crews (Bell et al., 2011).

References

- Abrams, D., & Hogg, M. A. (1988). Comments on the motivational status of self-esteem in social identity and inter-group discrimination. *European Journal of Social Psychology*, *18*, 317-334.
- Alliance for Board Diversity. (2011). Missing pieces: Women and minorities on *Fortune 500* boards. New York: Catalyst. http://theabd.org/ABD_report.pdf
- Allport, G.W. (1954). *The nature of prejudice*. Cambridge, MA: Perseus Books.
- Bamberger, P. A., & Levi, R. (2009). Team-based reward allocation structures and the helping behaviors of outcome-interdependent team members. *Journal of Managerial Psychology*, *24*, 300-327.
- Bargh, J. A., & Chartrand. T. L. (1999). The unbearable automaticity of being. *American Psychologist*, *54*, 462-479.
- Barnes, C. M., Hollenbeck, J. R., Wagner, D. T., DeRue, S. S., Nahrgang, J. D., & Schwind, K. M. (2008). Harmful help: The costs of backing-up behavior in teams. *Journal of Applied Psychology*, *93*, 529-539.
- Bell, S. T., Villado, A. J., Lukasik, M. A., Belau, L., & Briggs, A. L. (2011). Getting specific about demographic diversity variable and team performance relationships: A meta-analysis. *Journal of Management*, *37*, 709-743.
- Bettencourt, B. A., Charlton, K., & Kernahan, C. (1997). Numerical representation of groups in cooperative settings: Social orientation effects on ingroup bias. *Journal of Experimental Social Psychology*, *33*, 630-659.
- Bliese, P. D. (2000). Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In K. J. Klein, & S. W. J. Kozlowski (Eds.), *Multilevel*

theory, research, and methods in organizations: Foundations, extensions, and new directions (pp. 349-381). San Francisco, CA: Jossey-Bass Publishers.

Bordia, P. (1997). Face-to-face versus computer-mediated communication: A synthesis of the experimental literature. *Journal of Business Communication*, 34, 99-120.

Brown, K. A., & Mitchell, T. R. (1986). Influence of task interdependence and number of poor performers on diagnoses of causes of poor performance. *Academy of Management Journal*, 29, 412-424.

Bureau of Labor Statistics (2012). Household data annual averages: Employed persons by occupation, race, Hispanic or Latino ethnicity, and sex.

<http://www.bls.gov/cps/cpsaat10.pdf>

Catalyst (2006). *2006 Catalyst Member Benchmarking Report*. New York.

Chiocchio F., & Essiembre, H. (2009). Cohesion and performance: A meta-analytic review of disparities between project teams, production teams, and service teams. *Small Group Research*, 40, 382-420.

Cohen, S. G., & Bailey, D. E. (1997). What makes teams work: Group effectiveness research from the shop floor to the executive suite. *Journal of Management*, 23, 239-290.

Cox, T. H. (1993). *Cultural diversity in organizations: Theory, research and practice*. San Francisco, CA: Berrett-Koehler.

Cox, T. H., & Blake, S. (1991). Managing cultural diversity: Implications for organizational competitiveness. *Academy of Management Executive*, 5, 45-56.

Cox, T. H., Lobel, S. A., & McLeod, P. L. (1991). Effects of ethnic group cultural differences on cooperative and competitive behavior on a group task. *Academy of Management Journal*, 34, 827-847.

- Devine, D. J., Clayton, L. D., Philips, J. L., Dunford, B. B., & Melner, S. B. (1999). Teams in organizations: Prevalence, characteristics, and effectiveness. *Small Group Research, 30*, 678-711.
- Deza, M. M., & Deza, E. (2009). *Encyclopedia of Distances*. New York: Springer.
- Dipboye, R. L., & Colella, A. (2005). *Discrimination at work: The psychological and organizational bases*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Dubrovsky, V. J., Kiesler, S., & Sethna, B. N. (1991). The equalization phenomenon: Status effects in computer-mediated and face-to-face decision-making groups. *Human-Computer Interaction, 6*, 119-146.
- Edwards, J. R., & Lambert, L. S. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods, 12*, 1-22.
- Ehrhart, M. G. & Naumann, S. E. (2004). Organizational citizenship behavior in work groups: A group norms approach. *Journal of Applied Psychology, 89*, 960-974.
- Ellis, A. P. J., Hollenbeck, J. R., Ilgen, D. R., Porter, C. O. L. H., West, B. J., & Moon H. (2003). Team learning: Collectively connecting the dots. *Journal of Applied Psychology, 88*, 821-835.
- Equal Employment Opportunity Commission. (2012). Charge Statistics FY 1997 Through FY 2011. <http://eeoc.gov/eeoc/statistics/enforcement/charges.cfm>
- Fjermestad, J. (2004). An analysis of communication mode in group support systems research. *Decision Support Systems, 37*, 239-263.
- Gaertner, S., & Dovidio, J. F. (2000). *Reducing intergroup bias: The common ingroup identity model*. Philadelphia, PA: The Psychology Press.

- Gilbert, D. T. (1998). Ordinary personology. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1 and 2, pp. 89-150). New York: McGraw-Hill.
- Gilroy, P. (1998). Race ends here. *Ethnic and Racial Studies*, 21, 839-847.
- Gordon, J. (1992). Work teams: How far have they come? *Training*, October, 59-65.
- Haas, M. R. (2006). Knowledge gathering, team capabilities, and project performance in challenging work environments. *Management Science*, 52, 1170-1184.
- Hackman, J. R. (1990). *Groups that work (and those that don't): Creating conditions for effective teamwork*. San Francisco, CA: Jossey-Bass.
- Harrison, D. A., & Klein, K. J. (2007). What's the difference? Diversity constructs as separation, variety, and disparity in organization. *Academy of Management Review*, 32, 1199-1228.
- Harrison, D. A., Price, K. H., & Bell, M. P. (1998). Beyond relational demography: Time and the effects of surface- and deep-level diversity on group cohesion. *Academy of Management Journal*, 41, 96-107.
- Harrison, D. A., Price, K. H., Gavin, J. H., & Florey, A. T. (2002). Time, teams, and task performance: Changing effects of surface- and deep-level diversity on group functioning. *Academy of Management Journal*, 45, 1029-1045.
- Hinkle, D. E., Wiersma, W., & Jurs, S. G. (2003). *Applied statistics for the behavioral sciences* (5th ed.). Boston: Houghton Mifflin.
- Hispanic Association on Corporate Responsibility (HACR). (2011). *2011 HACR Corporate Inclusion Index*. Washington, DC: HACR.
- Hofmann, W., Gschwendner, T., Castelli, L., & Schmitt, M. (2008). Implicit and explicit attitudes and interracial interaction: The moderating role of situationally available control

- resources. *Group Processes & Intergroup Relations*, 11, 60-87.
- Hogg, M. A. (1992). *The social psychology of group cohesiveness: From attraction to social identity*. New York: Harvester Wheatsheaf/New York University Press.
- Hogg, M. A., & Abrams, D. (1990). Social motivation, self-esteem, and social identity. In D. Abrams & M. A. Hogg (Eds.), *Social identity theory: Constructive and critical advances* (pp. 28-47). London: Harvester Wheatsheaf.
- Hogg, M. A., & Abrams, D. (1993). Towards a single-process uncertainty-reduction model of social motivation in groups. In M. A. Hogg & D. Abrams (Eds.), *Group motivation: Social psychological perspectives* (pp. 173-190). London: Harvester Wheatsheaf.
- Hogg, M. A., & Terry, D. J. (2000). Social identity and self-categorization processes in organizational contexts. *Academy of Management Review*, 25, 121-140.
- Hollenbeck, J. R., Moon, H., Ellis, A. P. J., West, B. J., Ilgen, D. R., Sheppard, L., Porter, C. O. L. H., Wagner, J. A. III. (2002). Structural contingency theory and individual differences: Examination of external and internal person-team fit. *Journal of Applied Psychology*, 87, 599-606.
- Horwitz, S. K., & Horwitz, I. B. (2007). The effects of team diversity on team outcomes: A meta-analytic review of team demography. *Journal of Management*, 33, 987-1015.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55.
- Jackson, C. L., & LePine, J. A. (2003). Peer responses to a team's weakest link: A test and extension of LePine and van Dyne's model. *Journal of Applied Psychology*, 88, 459-475.

- Jackson, S. E. (1992). Team composition in organizational settings: Issues in managing an increasingly diverse work force. In S. Worchel, W. Wood, & J. A. Simpson (Eds.), *Group process and productivity* (pp. 138-173). Newbury Park, CA: Sage.
- Jehn, K., & Bezrukova, K. (2004). A field study of group diversity, workgroup context, and performance. *Journal of Organizational Behavior, 25*, 703-729.
- Jehn, K., Northcraft, G., & Neale, M. A. (1999). Why differences make a difference: A field study of diversity, conflict, and performance in workgroups. *Administrative Science Quarterly, 44*, 741-763.
- Jones, E. E., & Nisbett, R. E. (1971). *The actor and the observer: Divergent perceptions of the causes of behavior*. Morristown, NJ: General Learning Press.
- Kline, R. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York: The Guilford Press.
- Kozlowski, S. W. J., & Bell, B. S. (2003). Work groups and teams in organizations. In W. C. Borman, D. R. Ilgen, & R. Klimoski (Eds.), *Handbook of industrial and organizational psychology* (Vol. 12, pp. 333-375). New York: Wiley.
- Larson, R., & Hostetler, R. P. (2007). *College Algebra* (7th ed.). Boston, MA: Houghton Mifflin.
- Lau D. C., & Murnighan, J. K. (1998). Demographic diversity and faultlines: The compositional dynamics of organizational groups. *Academy of Management Review, 23*, 325-340.
- LePine, J. A., & Van Dyne, L. (2001). Peer responses to low performers: An attributional model of helping in the context of groups. *Academy of Management Review, 26*, 67-84.
- Levine, M., Cassidy, C., Brazier, G., & Reicher, S. (2002). Self-categorization and bystander non-intervention: Two experimental studies. *Journal of Applied Social Psychology, 32*, 1452-1463.

- Liden, R. C., Wayne, S. J., & Stilwell, D. (1993). A longitudinal study on early development of leader-member exchanges. *Journal of Applied Psychology, 78*, 662-674.
- Malle, B. F. (2006). The actor-observer asymmetry in attribution: A (surprising) meta-analysis. *Psychological Bulletin, 132*, 895-919.
- Mannix, E., & Neale, M. A. (2005). What differences make a difference. *Psychological Science in the Public Interest, 6*, 31-55.
- Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. (2001). A temporally based framework and taxonomy of team processes. *Academy of Management Review, 26*, 356-376.
- Mathieu, J., Maynard, M. T., Rapp, T., & Gilson, L. (2008). Team effectiveness 1997-2007: A review of recent advancements and a glimpse into the future. *Journal of Management, 43*, 410-476.
- McAuley, E., Duncan, T. E., & Russell, D. W. (1992). Measuring causal attributions: The revised causal dimension scale (CDSII). *Personality and Social Psychology Bulletin, 18*, 566-573.
- McConnell, A. R., & Leibold, J. M. (2001). Relations among the Implicit Association Test, discriminatory behavior, and explicit measures of racial attitudes. *Journal of Experimental Social Psychology, 37*, 435-442.
- McLeod, P., Baron, R., Marti, M., & Yoon, K. (1997). The eyes have it: Minority influence in face-to-face and computer-mediated group discussion. *Journal of Applied Psychology, 82*, 706-718.
- Miller, T. L., & Triana, M. (2009). Demographic diversity in the boardroom: Mediators of the board diversity-firm performance relationship. *Journal of Management Studies, 46*, 755-786.

- Pelled, L. H., Eisenhardt, K. M., & Xin, K. R. (1999). Exploring the black box: An analysis of work group diversity, conflict, and performance. *Administrative Science Quarterly, 44*, 1-28.
- Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology, 90*, 751-783.
- Porter, C. O. L. H. (2005). Goal orientation: Effects on backing up behavior, performance, efficacy, and commitment in teams. *Journal of Applied Psychology, 90*, 811-818.
- Porter, C. O. L. H., Hollenbeck, J. R., Ilgen, D. R., Ellis, A. P. J., West, B. J., & Moon, H. (2003). Backing up behavior in teams: The role of personality and legitimacy of need. *Journal of Applied Psychology, 88*, 391-403.
- Porter, C. O. L. H., Gogus, C. I., & Yu, R. C. (2010). When does teamwork translate into improved team performance? A resource allocation perspective. *Small Group Research, 41*, 221-248.
- Rains, S. A. (2005). Leveling the organizational playing field—virtually: A meta-analysis of experimental research assessing the impact of group support system use on member influence behaviors. *Communication Research, 32*, 193-234.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical Linear Models: Applications and data analysis methods* (2nd ed.). Thousand Oaks: Sage.
- Russell, D. W., McAuley, E., & Tarico, V. (1987). Measuring causal attributions for success and failure: A comparison of methodologies for assessing causal dimensions. *Journal of Personality and Social Psychology, 52*, 1248-1257.
- Sherif, M. (1936). *The psychology of social norms*. New York: Harper.

- Siegel, J., Dubrovsky, V., Kiesler, S., & McGuire, T. W. (1986). Group processes in computer-mediated communication. *Organizational Behavior and Human Decision Processes*, 37, 157-187.
- Sproull, L., & Kiesler, S. (1986). Reducing social context cues: Electronic mail in organizational communication. *Management Science*, 32, 1492-1512.
- Tajfel, H. (1981). *Human groups and social categories: Studies in social psychology*. New York: Cambridge University Press.
- Tajfel, H., & Turner, J. (1986). The social identity of intergroup behavior. In S. Worchel & W. Austin (Eds.), *Psychology of intergroup relations* (pp. 7-24). Chicago, IL: Nelson-Hall.
- Taylor, S. E., & Fiske, S. T. (1978). Saliency, attention and attribution: Top of the head phenomena. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 11, pp. 249-288). New York: Academic Press.
- Timmerman, T. A. (2000). Racial diversity, age diversity, interdependence, and team performance. *Small Group Research*, 31, 592-606.
- Torchia, M., Calabro, A., & Huse, M. (2011). Women directors on corporate boards: From tokenism to critical mass. *Journal of Business Ethics*, 102, 299-317.
- Triandis, H. C., Hall, E. R., & Ewen, R. B. (1965). Member heterogeneity and dyadic creativity. *Human Relations*, 18, 33-55.
- Turban, D. B., & Jones, A. P. (1988). Supervisor-subordinate similarity: Types, effects, and mechanisms. *Journal of Applied Psychology*, 73, 228-234.
- Turner, J. (1985). *Social categorization and the self concept: A social cognitive theory of group behavior*. Greenwich, CT: JAI Press.

- Turner, J. (1987). *Rediscovering the social group: A self-categorization theory*. New York: Basil Blackwell.
- Tsui, A., Egan, T. D., & O'Reilly, C. A. (1992). Being different: Relational demography and organizational attachment. *Administrative Science Quarterly*, 37, 549-579.
- Urban, L. M., & Miller, N. (1998). A theoretical analysis of crossed categorization effects: A meta-analysis. *Journal of Personality and Social Psychology*, 74, 894-908.
- U.S. Census Bureau (2008a). Race: What is race? <http://www.census.gov/population/race/>
- U.S. Census Bureau (2008b). An older, more diverse nation by mid-century. <http://www.census.gov/newsroom/releases/archives/population/cb08-123.html>
- U.S. National Archives (2012). *The Civil Rights Act of 1964 and the Equal Employment Opportunity Commission*. <http://www.archives.gov/education/lessons/civil-rights-act>
- van Dick, R., van Knippenberg, D., Hägele, S., Guillaume, Y. R. F., & Brodbeck, F. C. (2008). Group diversity and group identification: The moderating role of diversity beliefs. *Human Relations*, 61, 1463-1492.
- van Knippenberg, D., Haslam, S. A., & Platow, M. J. (2007). Unity through diversity: Value-in-diversity beliefs, work group diversity, and group identification. *Group Dynamics: Theory, Research, and Practice*, 11, 207-222.
- van Knippenberg, D., & Schippers, M. C. (2007). Work group diversity. *Annual Review of Psychology*, 58, 515-541.
- Watson, W. E., Kumar, K., & Michaelsen, L. K. (1993). Cultural diversity's impact on interaction process and performance: Comparing homogeneous and diverse task groups. *Academy of Management Journal*, 36, 590-602.

- Webber, S. S., & Donahue, L. M. (2001). Impact of highly and less job-related diversity on work group cohesion and performance: A meta-analysis. *Journal of Management*, 27, 141-162.
- Weiner, B. (1980a). A cognitive (attribution)-emotion-action model of motivated behavior: An analysis of judgments of help-giving behavior. *Journal of Personality and Social Psychology*, 39, 186-200.
- Weiner, B. (1980b). May I borrow your class notes? An attributional analysis of judgments of help-giving. *Journal of Educational Psychology*, 72, 676-681.
- Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, 92, 548-573.
- Weiner, B. (1986). *An attributional theory of motivation and emotion*. New York: Springer-Verlag.
- Weiner, B., Graham, S., & Chandler, C. (1982). Causal antecedents of pity, anger and guilt. *Personality and Social Psychology Bulletin*, 8, 226-232.
- Weiner, B., Russell, D., & Lerman, D. (1979). The cognition-emotion process in achievement-related contexts. *Journal of Personality and Social Psychology*, 37, 1211-1220.
- Williams, K. Y., & O'Reilly, C. A. I. (1998). Demography and diversity in organizations: A review of 40 years of research. *Research in Organizational Behavior*, 20, 77-140.

Table 1

Means, Standard Deviations, and Zero-Order Correlations Among Study Variables

Variable	Mean	SD	1	2	3	4	5	6
1. Time 2 Helping Behavior	5.59	5.42						
2. Time 1/Practice Helping Behavior	4.68	5.14	.90**					
3. Locus of Causality	15.14	5.08	-.08	-.06				
4. Stability	12.81	4.63	-.06	-.05	.44**			
5. Personal Control	16.79	4.93	-.12 [†]	-.09	.73**	.30**		
6. External Control	14.76	4.78	.10	.10	-.02	-.04	.17**	
7. Feedback Recipients' Racial Distance	.22	.42	-.09	-.08	.04	.10	.13*	.07

Note: $N = 237$.[†] $p < .10$ * $p < .05$. ** $p < .01$. Two-tailed tests.

Table 2

Hierarchical Linear Model Predicting Time 2 Helping Behavior

<i>Predictors</i>	Model			
	1	2	3	4
Time 1/Practice Helping Behavior	.73**	.74**	.74**	.74**
DC Workload		3.10**	2.94**	3.73**
DC Feedback		.11	.12	.71
Feedback Recipients' Racial Distance (FRRD)		-.16	-.18	-.21
DC Workload × DC Feedback			-.87	-2.89*
DC Workload × FRRD			-.75	.34
DC Feedback × FRRD			.24	.54
DC Workload × DC Feedback × FRRD				-2.58*

Note. $N = 237$. DC = dummy coded. DC Workload Condition is dummy-coded 0 for same workload and 1 for disproportionately heavy workload. DC Feedback Condition is dummy-coded 0 for positive feedback and 1 for negative feedback.

* $p < .05$. ** $p < .01$. *** $p < .001$. One-tailed tests.

Table 3

Coefficient Estimates for Deriving the Reduced Form Equation for Estimating the Mediated Moderation Model

3a: Main Effects of Predictors on Causal Attributions

	Dependent Variables			
	Locus of Causality	Stability	Personal Control	External Control
<i>Predictors</i>				
Intercept (a_0)	19.16***	16.88***	19.57***	16.44***
Time 1/Practice Helping Behavior (a_{c1})	-.01	-.06	.02	.16*
DC Workload (a_{x1})	-.78	-.63	-.94	-3.45*
DC Feedback (a_{x2})	-7.52***	-7.24***	-3.46*	-1.41
Feedback Recipients' Racial Distance (FRRD) (a_z)	1.10	1.68	.87	2.31*
DC Workload \times DC Feedback (a_{x1x2})	-.19	2.85	1.53	2.94
DC Workload \times FRRD (a_{x1x3})	1.03	.95	.64	-3.06
DC Feedback \times FRRD (a_{x2x3})	-3.44*	-3.00*	-1.02	-1.12
DC Workload \times DC Feedback \times FRRD (a_{x1x2z})	-.33	.60	2.63	2.97

Table 3 (Continued)

Coefficient Estimates for Deriving the Reduced Form Equation for Estimating the Mediated Moderation Model

3b: Mediating Effects of Causal Attributions on the Predictor → Helping Behavior Relationship

	Mediator			
	Locus of Causality	Stability	Personal Control	External Control
<i>Predictors</i>				
Intercept (b_0)	-.01	.19	.34	.19
Time 1/Practice Helping Behavior (b_{C1})	.73***	.74***	.74***	.74***
DC Workload (b_{X1})	3.50***	3.47***	3.46***	3.47***
DC Feedback (b_{X2})	.42	.38	.32	.32
DC Workload × DC Feedback (b_{X1X2})	-.69	-.72	-.68	-.69
Mediator (b_M) ^a	.02	.01	.00	.01

Note. $N = 237$. Coefficients at the top of the table are unstandardized regression coefficients from the regressions predicting the mediator variables. Coefficients at the bottom of the table are unstandardized regression coefficients from the regressions predicting helping behavior.

^a - Mediator (b_M) represents either locus of causality, stability, personal control, or external control.

* $p < .05$. ** $p < .01$. *** $p < .001$. One-tailed tests.

Table 4

Path Estimates of Indirect, Direct, and Total Effects

	Workload × Feedback → Attribution	Attribution → Helping	Effects		
			Indirect	Direct	Total (Direct + Indirect)
Locus of Causality					
Low Racial Distance	.34	.02	.00	-.63	-.63
High Racial Distance	.28	.02	.00	-.63	-.63
Difference	-.06	--	.00	--	.00
Stability					
Low Racial Distance	2.24*	.01	.00	-.62	-.62
High Racial Distance	2.84	.01	.00	-.62	-.62
Difference	.60	--	.00	--	.00
Personal Control					
Low Racial Distance	-1.15	.00	.02	-.66	-.64
High Racial Distance	1.58	.00	-.03	-.66	-.69
Difference	-2.73	--	-.05	--	-.05
External Control					
Low Racial Distance	-.03	.01	-.00	-.64	-.64
High Racial Distance	2.73	.01	.08	-.64	-.56
Difference	2.76	--	.08	--	.08

Note. Unstandardized regression coefficients are presented. Differences in the simple effects were computed by subtracting the effects of low racial distance from the effects of high racial distance. Test of the differences of the workload × feedback → attribution path is equivalent to the tests of the three-way interaction terms presented in Table 3. Significance tests for the indirect and total effects and differences between the indirect and total effects are based on the bias-corrected confidence intervals derived from bootstrapping estimates with 1000 samples, as explained in Edwards and Lambert (2007).

* $p < .05$. ** $p < .01$. *** $p < .001$. One-tailed tests.

Table 5

Mean Causal Attributions Across Levels of Workload, Feedback, and Racial Distance

	Same Workload		Heavier Workload	
	Positive Feedback	Negative Feedback	Positive Feedback	Negative Feedback
Locus of Causality				
Low Racial Distance	18.05	13.98	16.26	12.35
High Racial Distance	19.13	11.64	18.00	11.56
Stability				
Low Racial Distance ^a	15.12	10.89	13.30	11.26
High Racial Distance	16.80	9.57	15.71	11.78
Personal Control				
Low Racial Distance	18.74	16.30	17.50	13.78
High Racial Distance	19.60	16.14	18.79	16.78
External Control				
Low Racial Distance	14.36	14.02	15.04	14.80
High Racial Distance	16.67	15.21	14.43	15.11

^a – Indicates a workload × feedback interaction highlighted in the results presented in Table 4.

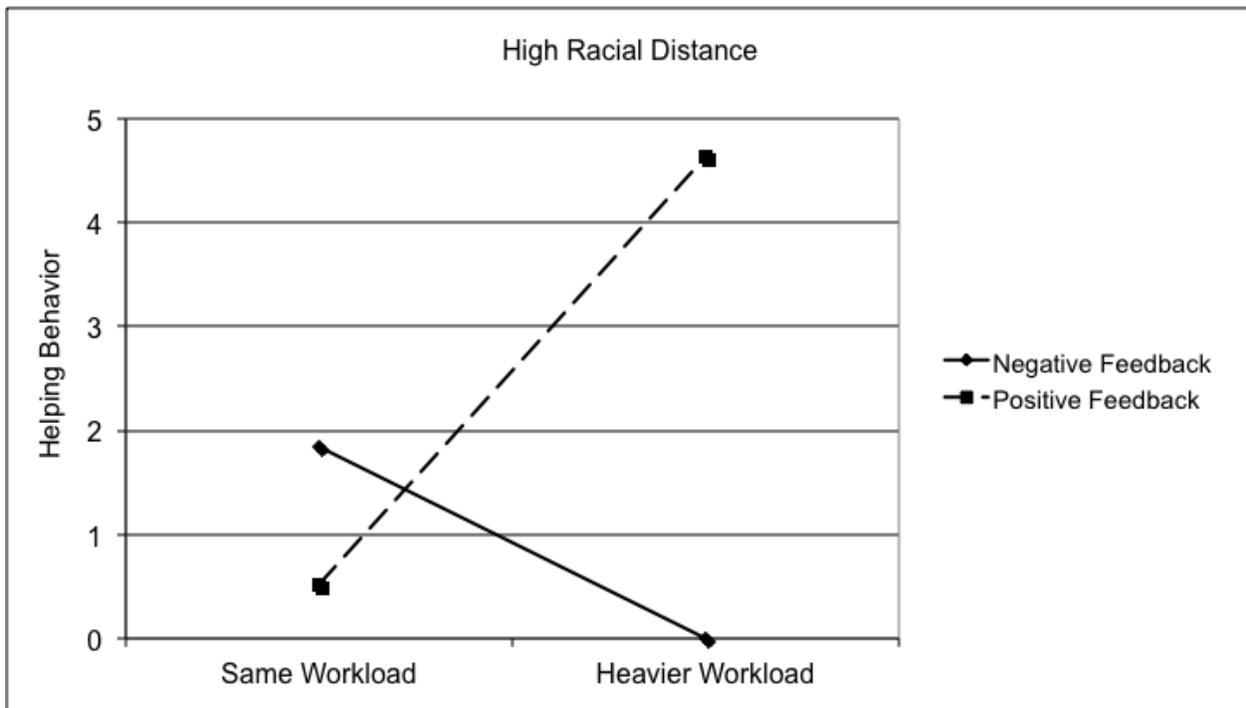
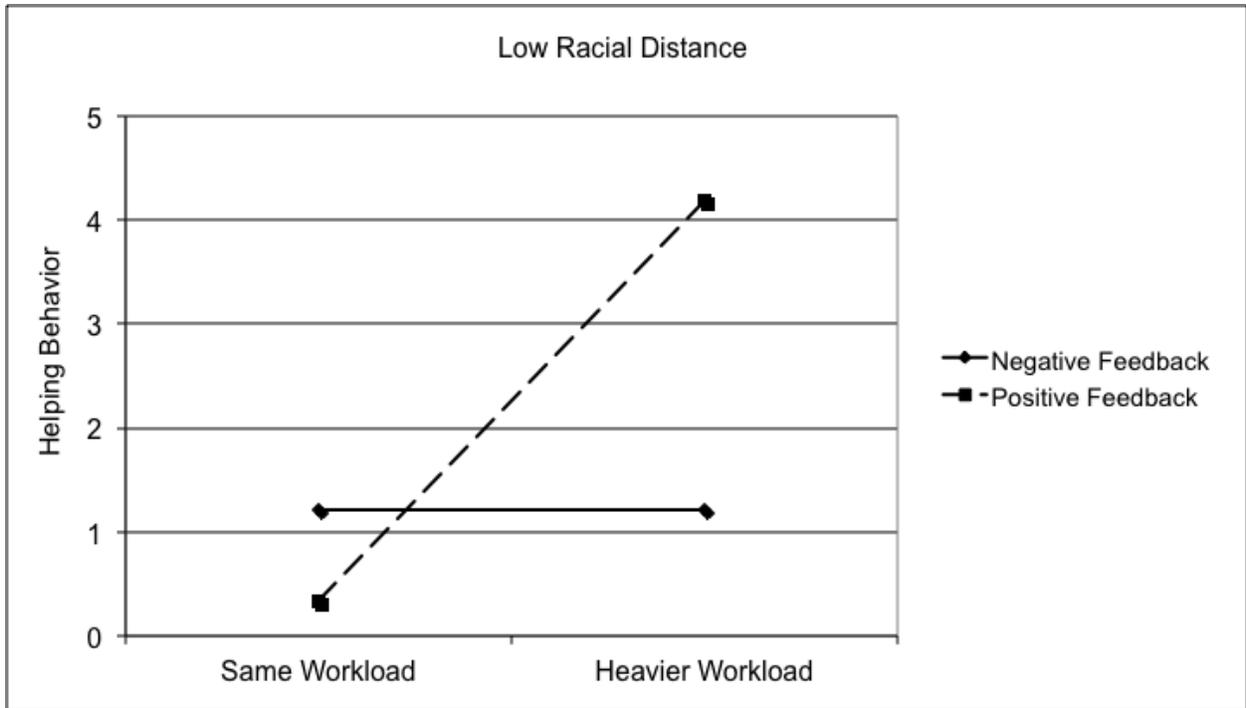


Figure 1. Three-way interaction between workload, feedback, and racial distance of feedback recipients from team members on helping behavior.